

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A system including a virtual channel table for a broadcast protocol[[],] comprising identification information in a bit stream syntax thereof, said identification information identifying each individual channel as one of an active and an inactive channel.

2. (Currently Amended) The system virtual channel table of claim 1, wherein said virtual channel table is included in a program and system information protocol for a digital broadcast.

3. (Currently Amended) The system virtual channel table of claim 2, wherein said digital broadcast is any one of a digital terrestrial broadcast and a digital cable broadcast.

4. (Currently Amended) The system virtual channel table of claim 1, wherein said identification information sets a value of a program number field in the virtual channel table to “0” to indicate that a corresponding channel is an inactive channel.

5. (Currently Amended) The system virtual channel table of claim 1, wherein said identification information sets a value of a number of elements field of a service location

descriptor in the virtual channel table to “0” to indicate that a corresponding channel is an inactive channel.

6. (Currently Amended) The system virtual channel table of claim 1, wherein said identification information indicates that a corresponding channel is an inactive channel whenever a service location descriptor is not included in the virtual channel table.

7. (Currently Amended) The system virtual channel table of claim 1, wherein said identification information assigns at least one bit of a reserved field to indicate that a corresponding channel is an inactive channel.

8. (Currently Amended) The system virtual channel table of claim 7, wherein said reserved field is positioned in a statement of a for loop in a bit stream syntax of the virtual channel table.

9. (Original) The method of broadcasting using a virtual channel table in a broadcasting protocol, said method comprising:

including identification information in the virtual channel table, said identification information identifying a channel as being one of an active and an inactive channel, and transmitting the virtual channel table; and

determining at a receiver whether the channel is inactive based upon the identification information defined in the virtual channel table, by parsing the virtual channel table.

10. (Original) The method of claim 9, wherein including identification information further comprises, when a channel is inactive, setting a value of a program number field in the virtual channel table to “0” and inhibiting a service location descriptor from being transmitted through the virtual channel table.

11. (Original) The method of claim 9, wherein including identification information further comprises setting a value of the program number field and a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table to “0.”

12. (Original) The method of claim 9, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a corresponding service location descriptor is not received in the virtual channel table.

13. (Original) The method of claim 9, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table is “0.”

14. (Original) The method of claim 9, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a program number field in the virtual channel table is “0.”

15. (Currently Amended) In a digital television receiver, a method of inhibiting display of an inactive channel, comprising:

receiving a digital broadcast signal comprising a virtual channel table;
parsing the virtual channel table;

retrieving identification information from the parsed virtual channel table indicating whether a channel is inactive; and

[[and,]] in response to said identification information indicating that the channel is inactive, inhibiting display of said channel when said channel is selected by a user.

16. (Original) The method of claim 15, wherein retrieving the identification information comprises reading a value of a reserved field for identifying an inactive channel in the parsed virtual channel table.

17. (Original) The method of claim 15, wherein retrieving the identification information comprises reading a value of a program number field in the parsed virtual channel table.

18. (Original) The method of claim 15, wherein retrieving the identification information comprises determining whether a service location descriptor is found in the parsed virtual channel table.

19. (Original) In a digital broadcast transmitter, a method of indicating an inactive channel, comprising:

generating a virtual channel table, including within the virtual channel table information indicating the inactive channel; and

transmitting the virtual channel table as part of a digital broadcast signal.

20. (Original) The method of claim 19, wherein including within the virtual channel table information indicating the inactive channel comprises setting a value of a program number field in the virtual channel table to indicate the inactive channel.

21. (Original) The method of claim 19, wherein including within the virtual channel table information indicating the inactive channel comprises assigning at least one bit of a reserved field to indicate the inactive channel.

22. (Original) The method of claim 19, wherein including within the virtual channel table information indicating the inactive channel comprises omitting a service location descriptor.

23. (Original) A digital television receiver, comprising:
receiving means for receiving a digital broadcast signal including a virtual channel table, the virtual channel table including identification information identifying a channel as being one of an active and an inactive channel;
detecting means for detecting the identification information in the virtual channel table; and

inhibiting means for inhibiting display of the channel when the channel is selected by the user and the channel is the inactive channel.

24. (Original) The digital television receiver of claim 23, wherein the virtual channel table is included in a program and system information protocol for the digital broadcast signal.

25. (Original) The digital television receiver of claim 23, wherein the identification information has a value of “0” in a program number field of the virtual channel table when the channel is the inactive channel.

26. (Original) The digital television receiver of claim 23, wherein the identification information has a value of "0" in a number of elements field of a service location descriptor in the virtual channel table when the channel is the inactive channel.

27. (Original) A digital television (DTV) receiver, comprising:

receiving means for receiving a digital broadcast signal including a virtual channel table, the virtual channel table including identification information identifying a channel as being one of an active and an inactive channel;

a program and system information protocol (PSIP) decoder for detecting the identification information in the virtual channel table and providing an output indicating whether the channel is the inactive channel; and

a user interface module for receiving the output of the PSIP decoder and inhibiting display of the channel when the channel is selected by the user and the channel is the inactive channel.

28. (Original) The DTV receiver of claim 27, wherein the receiving means comprises:

demodulation means for demodulating the digital broadcast signal and outputting a baseband signal; and

decoder means for decoding the baseband signal and providing a PSIP data stream to the PSIP decoder.

29. (Original) The DTV receiver of claim 28, wherein the demodulating means comprises a demodulator.

30. (Original) The DTV receiver of claim 29, wherein the decoding means comprises a transport decoder.

31. (New) A method of receiving a virtual channel table in a broadcasting protocol, said method comprising:

receiving identification information in the virtual channel table, said identification information identifying a channel as being one of an active and an inactive channel; and

determining whether the channel is inactive based upon the identification information defined in the virtual channel table, by parsing the virtual channel table.

32. (New) The method of claim 31 wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a corresponding service location descriptor is not received in the virtual channel table.

33. (New) The method of claim 31, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a reserved field assigned for recognizing an inactive channel in the parsed virtual channel table is “0.”

34. (New) The method of claim 31, wherein determining at the receiver whether the channel is inactive comprises determining that the channel is inactive when a value of a program number field in the virtual channel table is “0.”